

Please ~~add~~ the following new claim:

A1  
42. A method of making a hGGPPS polypeptide, said method comprising  
(a) providing a population of host cells comprising the nucleic acid of any of claims 1, 2 and 3;  
and  
(b) culturing said population of host cells under conditions conducive to the expression of said recombinant nucleic acid;  
whereby said polypeptide is produced within said population of host cells.

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Please ~~amend~~ the following claims:

A2  
1. A composition comprising an isolated, purified, or recombinant polynucleotide comprising [a contiguous span of at least 12 nucleotides] ~~any one of:~~  
(a) the nucleotide sequence of SEQ ID No 1;  
(b) the nucleotide sequence of SEQ ID No 2;  
(c) the nucleotide sequence of SEQ ID No 3;  
(d) a contiguous span of 8 to 50 nucleotides of any one of SEQ ID Nos 1, 2, or 3, wherein said span includes the hGGPPS-related biallelic marker designated 5-187-77; and  
(e) [or] the complements of (a), (b) (c) or (d) above [thereof, wherein said contiguous span comprises at least 1 of the following nucleotide positions of SEQ ID No 1: 1-485, 547-632, 827-7291, 7385-13759, 13831-14062, 14671-15054, and 15252-17131].

A3  
10. A composition comprising an isolated, purified, or recombinant polynucleotide consisting essentially of a sequence selected from the group consisting of SEQ ID Nos 5 to 9 and the complementary sequences thereto [8-9].

A4  
15. A composition comprising an isolated, purified, or recombinant polynucleotide which encodes a polypeptide comprising a contiguous span of at least 6 amino acids of SEQ ID No 4, wherein said contiguous span includes at least one amino acid selected from the group consisting of a Phe residue at positions 204, 257, 295. of SEQ ID No 4, a Cys residue at position 205 of SEQ ID No 4, a Pro residue at position 225 of SEQ ID No 4 [, and a Glu residue at position 252 of SEQ ID No 4].

A5

21. The polynucleotide according to [any one of claims 1-20] claim 1 attached to a solid support.

24. The: [a] polynucleotide according to [any one of claims 1-20] claim 1 further comprising a label.

25. A recombinant vector comprising [a] the polynucleotide according to claim 1 [any one of claims 1-20].

26. A composition comprising: a host cell recombinant for the polynucleotide of claim 1 [comprising a recombinant vector according to claim 25].

27. A non-human host animal or mammal comprising [a] the recombinant vector according to claim 25.

28. A method of genotyping comprising determining the identity of a nucleotide at a hGGPPS-related biallelic marker or the complement thereof in a biological sample, wherein said hGGPPS-related biallelic marker is 5-187-77.

A7

32. The [A] method according to claim [any one of claims] 28, further comprising amplifying a portion of said sequence comprising the biallelic marker prior to said determining step.

38. A composition comprising: an isolated, purified, or recombinant polypeptide comprising a contiguous span of at least 6 amino acids of SEQ ID No 4, wherein said contiguous span includes at least one amino acid selected from the group consisting of a Phe residue at positions 204, 257, 295 of SEQ ID No 4, a Cys residue at position 205 of SEQ ID No 4, and a Pro residue at position 225 of SEQ ID No 4 [, and a Glu residue at position 252 of SEQ ID No 4].

39. An isolated or purified antibody composition are capable of selectively binding to an epitope-containing fragment of a polypeptide according to claim 38, wherein said epitope comprises at least one amino acid selected from the group consisting of a Phe residue at positions

204, 257, 295 of SEQ ID No 4, a Cys residue at position 205 of SEQ ID No 4, and a Pro residue at position 225 of SEQ ID No 4 [, and a Glu residue at position 252 of SEQ ID No 4].

40. A method for the screening of a candidate substance or molecule modulating the expression of the *hGGPS* gene, said method comprising the following steps :

- AG  
cml
- (a) providing a recombinant host cell expressing a nucleic acid, wherein said nucleic acid comprises a polynucleotide according to claim 1 [a nucleotide sequence selected from the group consisting of SEQ ID Nos 1, 2 and 3 or a fragment thereof];
  - (b) obtaining a candidate substance, and
  - (c) determining the ability of the candidate substance to modulate the expression levels of the nucleotide sequence according to claim 1 [selected from the group consisting of SEQ ID Nos 1, 2, and 3 or a fragment thereof].

41. A method for the screening of a candidate substance or molecule modulating the expression of the *hGGPS* gene, said method comprising the following steps :

- (a) providing a recombinant cell host containing a nucleic acid, wherein said nucleic acid, comprises a nucleotide sequence of the 5' regulatory region or a biologically active fragment of a polynucleotide according to claim 1 or variant thereof located upstream of a polynucleotide encoding a detectable protein;
- (b) obtaining a candidate substance; and
- (c) determining the ability of the candidate substance to modulate the expression levels of the polynucleotide encoding the detectable protein.

#### REMARKS

##### Amendments to the claims:

The sequence listing has been amended to list the Inventors as the Applicants according to U.S. procedure rather than listing the Assignee as Applicant. Accordingly, no new matter has been introduced.